



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/542,611

07/18/2005

Kenichiro Shinoi

L9289.05161

7286

52989

7590

06/24/2009

Dickinson Wright PLLC

James E. Ledbetter, Esq.

International Square

1875 Eye Street, N.W., Suite 1200

Washington, DC 20006

EXAMINER

BOLOURCHI, NADER

ART UNIT

PAPER NUMBER

2611

MAIL DATE

DELIVERY MODE

06/24/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/542,611	Applicant(s) SHINOI ET AL.	
	Examiner NADER BOLOURCHI	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 34-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 34-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection.

Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 3/19/2009 has been entered.

2. Applicant canceling claims 23-33 is acknowledged.

Response to Arguments

3. Applicant's arguments, see Remarks, filed 3/19/2009, with respect to 23-33 have been fully considered and are persuasive, as applicant has cancelled claims 23-33.

4. However, upon further consideration, a new ground(s) of rejection is made in view of Dahlman et al. (2002/0010001 A1).

Claim Objections

Art Unit: 2611

5. Claims 34 and 42 are objected to because of the following informalities: replace phrase "the accuracy" with the phrase "an accuracy" in line 6 of claims 34 and 42.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 34-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dahlman et al. (2002/0010001 A1).

Regarding claim 34, Dahlman et al. disclose an accuracy testing apparatus (Fig. 1) comprising: a setting section (BS in Fig. 1: 110 sets "DPCH" described in par. 31) that sets a transmission scheme ("DSCH" in par. 31) for data to be transmitted to a communication apparatus (MS in Fig. 1: 120; par. 31); a transmitting section that transmits the data to the communication apparatus using the set transmission scheme (BS in Fig. 1: 110; par. 31). Dahlman does not explicitly disclose a determination section. However, one of the ordinary skill in the art would recognize that a determination section that determines the accuracy of a channel quality report value reported from the communication apparatus is what MS in Fig. 1: 120 does. Examiner notes that the accuracy of the channel quality is related to the link adaptation that changes the MCS according to the channel quality feedback from the mobile station (MS). So if BS transmit data with a MCS (1) according to a CQI(1) to the MS and the MS sends back a different channel quality (e.g., CQI(2)) because of a changing channel condition in order to change the MCS to a MCS(2), then CQI change would be the accuracy of the CQI. Dahlman et al. also disclose the setting section sets one of a predetermined first transmission scheme ("power controlled DPCH in par. 31; Examiner notes that this is the same as BS transmit data with a MCS (1) according to a CQI(1) to the MS) and a second transmission scheme that is based on the channel quality report value reported from the communication apparatus in response to the data transmitted by the first transmission scheme, as the transmission scheme for the data to be transmitted to the communication

Art Unit: 2611

apparatus (DPCH transmitted as a result of PC command send by MS as described in par. 31; Examiner notes that this is the same as BS transmit data with a MCS (2) according to a CQI(2) to the MS, after receiving PC command from MS); the transmitting section transmits the data by the first transmission scheme, and, after the data has been transmitted by the first transmission scheme transmits the data by the second transmission scheme; and the determination section determines the accuracy of the channel quality report value reported from the communication apparatus based on a reception error rate of the data transmitted by the second transmission scheme (pc command sent by MS to BS to increase or decrease the power of DPCH "When the received signal-to-interference ratio lies below a certain threshold" or "if the received signal-to-interference ratio lies above the threshold" as described in par. 31)

Regarding claim 35, Dahlman et al. disclose as stated in rejection of claim 34 above. Dahlman et al. also disclose based on channel quality report values reported individually from a plurality of communication apparatuses, the setting section sets the second transmission scheme per communication apparatus; the transmitting section transmits the data to each communication apparatus by the second transmission scheme set for said each communication apparatus (pc command sent by MS to BS to increase or decrease the power of DPCH "When the received signal-to-interference ratio lies below a certain threshold" or "if the received signal-to-interference ratio lies above the threshold" as described in par. 31); and based on reception error rates of the data transmitted to the

Art Unit: 2611

communication apparatuses by the second transmission scheme set for said each communication apparatus, the determination section determines the accuracy of the report values (Fig. 1: 120: Examiner notes that the accuracy of the channel quality is related to the link adaptation that changes the MCS according to the channel quality feedback from the mobile station (MS). So if BS transmit data with a MCS (1) according to a CQI(1) to the MS and the MS sends back a different channel quality (e.g., CQI(2)) because of a changing channel condition in order to change the MCS to a MCS(2), then CQI change would be the accuracy of the CQI).

Regarding claim 36, Dahlman et al. disclose as stated in rejection of claim 34 above. Dahlman et al. also disclose the setting section sets the second transmission scheme according to statistics of channel quality report values ("the received signal-to-interference ratio" in par. 31).

Regarding claim 37, Dahlman et al. disclose as stated in rejection of claim 34 above. Dahlman et al. also disclose the setting section sets the second transmission scheme based on a median value of channel quality report values.

Regarding claim 38, Dahlman et al. disclose as stated in rejection of claim 34 above. Dahlman et al. also disclose the transmitting section transmits the data to the communication apparatus using a predetermined channel ("DPCH" in par. 31).

Regarding claim 39, Dahlman et al. disclose as stated in rejection of claim 34 above. Dahlman et al. also disclose a calculation section that calculates the reception error rate of the transmitted data in association with values indicating channel quality (MS in Fig. 1: 120), wherein the determination section determines the accuracy of the channel quality report value based on a reception error rate calculated in association with a specific value out of the values indicating channel quality ("the received signal-to-interference ratio" in par. 31).

Regarding claim 40, Dahlman et al. disclose as stated in rejection of claim 34 above. Dahlman et al. also disclose a calculation section that calculates reception error rates of the transmitted data in association with a plurality of values indicating channel quality, wherein the determination section determines the accuracy of the channel quality report value based on reception error rates calculated in association with: (1) a median value of the plurality of values indicating channel quality ("P_{DPCH} Power average" in Table 1 and/or Table 2) and (2) a value predetermined level different from the median value ("the threshold" in par. 31).

Regarding claim 41, Dahlman et al. disclose as stated in rejection of claim 34 above. Dahlman et al. also disclose a pass/fail decision section that decides whether a communication apparatus which is a target of a test, passes or fails, based on a test result in the accuracy testing apparatus ("When the received

Art Unit: 2611

signal-to-interference ratio lies below a certain threshold" or "if the received signal-to-interference ratio lies above the threshold" as described in par. 31).

Regarding claim 42, Dahlman et al. disclose an accuracy testing method (Fig. 1) comprising: a setting step of setting a transmission scheme (BS in Fig. 1: 110 sets "DPCH" described in par. 31; "DSCH" in par. 31) for data to be transmitted to a communication apparatus (MS in Fig. 1: 120); a transmitting step of transmitting the data to the communication apparatus using the set transmission scheme (BS in Fig. 1: 110); Dahlman does not explicitly disclose a determination section. However, one of the ordinary skill in the art would recognize that a determination section that determines the accuracy of a channel quality report value reported from the communication apparatus is what MS in Fig. 1: 110 does. Examiner notes that the accuracy of the channel quality is related to the link adaptation that changes the MCS according to the channel quality feedback from the mobile station (MS). So if BS transmit data with a MCS (1) according to a CQI(1) to the MS and the MS sends back a different channel quality (e.g., CQI(2)) because of a changing channel condition in order to change the MCS to a MCS(2), then CQI change would be the accuracy of the CQI. Dahlman et al. also disclose the setting step comprises setting one of a predetermined first transmission scheme ("power controlled DPCH in par. 31; Examiner notes that this is the same as BS transmit data with a MCS (1) according to a CQI(1) to the MS) and a second transmission scheme that is based on the channel quality report value reported from the communication apparatus in response to the data

Art Unit: 2611

transmitted by the first transmission scheme (DPCH transmitted as a result of PC command send by MS as described in par. 31; Examiner notes that this is the same as BS transmit data with a MCS (2) according to a CQI(2) to the MS, after receiving PC command from MS), as the transmission scheme for the data to be transmitted to the communication apparatus; the transmitting step comprises transmitting the data by the first transmission scheme, and, after the data has been transmitted by the first transmission scheme, transmitting the data by the second transmission scheme; and the determination step comprises determining the accuracy of the channel quality report value reported from the communication apparatus based on a reception error rate of the data transmitted by the second transmission scheme (pc command sent by MS to BS to increase or decrease the power of DPCH "When the received signal-to-interference ratio lies below a certain threshold" or "if the received signal-to-interference ratio lies above the threshold" as described in par. 31)

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nader Bolourchi whose telephone number is (571) 272-8064. The examiner can normally be reached on M-F 8:30 to 4:30.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David. C. Payne can be reached on (571) 272-3024. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

/Nader Bolourchi/
Examiner, Art Unit 2611
/Shuwang Liu/
Supervisory Patent Examiner, Art Unit 2611